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1940 FOREST INSECT SURVEY - SEQUOIA NATIONAL FOREST

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by
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Berkeley, California
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SUBJECT—

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Forest Insect Laboratory
Berkeley, California
December 20, 1940

1940 FOREST INSECT SURVEY - SEQUOIA NATIONAL FOREST

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1940 FOREST INSECT SURVEY - SEQUOIA NATIONAL FOREST

The period of October 19 to 24 was spent in making a survey of the insect losses on permanent sample plots of this forest and in a general reconnaissance of the insect conditions in this forest and in the adjacent Sequoia National Park. The survey crew was made up of Gilbert Acosta, Noel Street, S. T. Carlson and Donald DeLeon. All costs of the survey work were carried by the Forest Insect Laboratory.

The same areas were covered and the methods used were the same as in the 1939 survey. Other developments interfered with the plans for further enlargement and organization of the Sequoia surveys as suggested in last year's report. For location of plots and infestation units, reference is made to the map attached to the Forest Insect Survey report of December 19, 1939.

GENERAL CONDITIONS

No insect outbreak was observed in any part of the forest. In fact on all but one of the plots there was an appreciable decline in the amount of infestation in the pine stands over that of last year. There was a slight increase in the number of white fir infested by Scolytus on the Woodward Creek plot. The sugar pine infestation in Ten Mile Creek appears to have slackened slightly, but it is still in a rather high endemic condition. Table I summarizes the sample plot data. Sample plot S-2 in Sequoia National Park is included as it helps to complete the picture of the conditions on the nearby forest. Table II is an estimate of losses per unit area based on sample plot data and general observations.

CONDITIONS IN UNIT AREAS

Whitaker Unit: There was a marked decline in the volume of board feet killed per acre on the sample plot. Grouping was observed in only one case where 5 ponderosa pine poles had been killed by the western pine beetle near some windbroken trees. Very few infested trees of any species were observed in the Eshom Creek Drainage.

Woodward Creek Unit: The Jeffrey pine beetle infestation in Jeffrey pine has slackened somewhat, although the stand-per-acre loss is still relatively high. There appeared to be an increase in the number of white fir dying in the area, but fir losses may fluctuate greatly from year to year so that even though fir were much more valuable than it is at present there would be no need for control work.

Camp Wishon Unit: A general reconnaissance in this area showed only a few scattered dying trees.

Camp Nelson Unit: There was a noticeable decline in the number of infested trees in this unit. On the sample plot the infestation fell from a loss of 64 BM per acre to less than 1 BM per acre. This decline was about the same for the entire area.

Mineral King Area: This area was not visited chiefly because this is the off-year for the needleminer which is centered at Mineral King. It is difficult to determine the damage done by the insect in the even years when there is no flight as the caterpillars are still very small and damage caused by feeding is slight.

Kings River Canyon Recreational Area: The cedar grove area was examined several times this summer, but as the area is now being administered by the National Park Service there seems to be no need to discuss the insect situation here.

CONCLUSIONS

No control work is recommended for the winter or coming spring. The Ten Mile Creek area should be watched, and control work may possibly be necessary next fall to protect the sugar pine stand in the General Grant Grove.

TABLE I. SURVEY PLOT LOSSES

Plot	Tree Species	1938 No. Trees	1938 Volume B.M.	1938 Volume BM/Ac.	1939 No. Trees	1939 Volume B.M.	1939 Volume BM/Ac.	1940 No. Trees	1940 Volume B.M.	1940 Volume BM/Ac.
Whitaker	Ponderosa pine				2	3,000	19	2*	140	0.8
Se-1	Sugar pine	1	230	1.4	1	300	2	2	460	2.8
160 acres	Total	1	230	1.4	3	3,300	21	4	600	3.7
	White fir				1	550	3.4	1	550	3.4
Woodward Cr.	Jeffrey pine	6	10,550	66	12	18,000	113	7°	5,580	35
Se-2	White fir				2	1,850	11	7°	16,400	102
160 acres	Lodgepole pine				1	690	4			
Camp Nelson	Ponderosa pine	5	5,860	49	4	7,120	60			
Se-3	Sugar pine	1	30	0.3	1	500	4	1+	30	.25
120 acres	Total	6	5,890	49	5	7,620	64	1	30	.25
Atwell Mill	Ponderosa pine				1	140	2			
Sequoia N.P.	Sugar pine							1	4,080	51
S-2	Total				1	140	2	1	4,080	51
80 acres	White fir				1	640	8			

In addition,

* five trees of pole size were killed,

° one pole not included,

\+ four sugar pine poles and one incense cedar pole not included.

TABLE II. ESTIMATED UNIT LOSSES

Plot	Acreage	1939		1940	
		No. Trees	Volume B.M.	No. Trees*	Volume B.M.
Whitaker	30,000	800	1,200,000	200	111,000
Woodward Creek	14,000	200	300,000	165	100,000
Camp Wishon	13,000	75	134,000	35	65,000
Camp Nelson	20,000	150	267,000	60	5,000

* Pines only.